1635

ENTERED

RAW SEQUENCE LISTING
PATENT APPLICATION:   US/09/446,402A

DATE: 04/13/2001
TIME: 13:35:15

Input Set : A:\LUCYsequence list.APP.txt
Output Set: N:\CRF3\04122001\I446402A.raw

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 4 <110> APPLICANT: Black Jr., Charles A.
 6 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR ACTIVATING
 7       GENES OF INTEREST
 9 <130> FILE REFERENCE: 5722-2(35722/191928)
11 <140> CURRENT APPLICATION NUMBER: 09/446,402A
12 <141> CURRENT FILING DATE: 1999-12-20
14 <150> PRIOR APPLICATION NUMBER: PCT/US98/13093
15 <151> PRIOR FILING DATE: 1998-06-24
17 <150> PRIOR APPLICATION NUMBER: 60/050,772
18 <151> PRIOR FILING DATE: 1997-06-25
20 <160> NUMBER OF SEQ ID NOS: 19
22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 4279
26 <212> TYPE: DNA
27 <213> ORGANISM: Artificial Sequence
29 <220> FEATURE:
30 <223> OTHER INFORMATION: Recombinant Molecule containing multiple cloning
31       site, kozak sequence, LacZ gene.
33 <221> NAME/KEY: misc_feature
34 <222> LOCATION: (1)...(64)
35 <223> OTHER INFORMATION: Multiple cloning site
37 <221> NAME/KEY: misc_feature
38 <222> LOCATION: (65)...(79)
39 <223> OTHER INFORMATION: Consensus sequence for the "Kozak sequence"
40       (translation initiation)
42 <221> NAME/KEY: prim_transcript
43 <222> LOCATION: (80)...(4279)
44 <223> OTHER INFORMATION: Beta galactosidase
46 <400> SEQUENCE: 1
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48 ccgggccgcc gccaccatgg cgcagcacca tggcctgaaa taacctctga aagaggaact     120
49 tggttaggta ccttctgagg cggaaagaac cagctgtgga atgtgtgtca gttagggtgt     180
50 ggaaagtccc caggctcccc agcaggcaga agtatgcaaa gcatgcatct caattagtca     240
51 gcaaccaggt gtggaaagtc cccaggctcc ccagcaggca gaagtatgca aagcatgcat     300
52 ctcaattagt cagcaaccat agtcccgccc ctaactccgc ccatcccgcc cctaactccg     360
53 cccagttccg cccattctcc gccccatggc tgactaattt tttttattta tgcagaggcc     420
54 gaggccgcct cggcctctga gctattccag aagtagtgag gaggcttttt tggaggccta     480
55 ggctttttgca aaaagcttgg gatctctata atctcgcgca acctattttc ccctcgaaca     540
56 ctttttaagc cgtagataaa caggctggga cacttcacat gagcgaaaaa tacatcgtca     600
57 cctgggacat gttgcagatc catgcacgta aactcgcaag ccgactgatg ccttctgaac     660
58 aatggaaagg cattattgcc gtaagccgtg gcggtctggt accggtgggt gaagaccaga     720
59 aacagcacct cgaactgagc cgcgatattg cccagcgttt caacgcgctg tatggcgaga     780
60 tcgatcccgt cgttttacaa cgtcgtgact gggaaaaccc tggcgttacc caacttaatc     840
61 gccttgcagc acatccccct ttcgccagct ggcgtaatag cgaagaggcc cgcaccgatc     900
62 gcccttccca acagttcgc agcctgaatg gcgaatggcg ctttgcctgg tttccggcac     960
63 cagaagcggt gccggaaagc tggctggagt gcgatcttcc tgaggccgat actgtcgtcg    1020
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```
 64 tcccctcaaa ctggcagatg cacggttacg atgcgcccat ctacaccaac gtaacctatc   1080
 65 ccattacggt caatccgccg tttgttccca cggagaatcc gacgggttgt tactcgctca   1140
 66 catttaatgt tgatgaaagc tggctacagg aaggccagac gcgaattatt tttgatggcg   1200
 67 ttaactcggc gtttcatctg tggtgcaacg ggcgctgggt cggttacggc caggacagtc   1260
 68 gtttgccgtc tgaatttgac ctgagcgcat ttttacgcgc cggagaaaac cgcctcgcgg   1320
 69 tgatggtgct gcgttggagt gacggcagtt atctggaaga tcaggatatg tggcggatga   1380
 70 gcggcatttt ccgtgacgtc tcgttgctgc ataaaccgac tacacaaatc agcgatttcc   1440
 71 atgttgccac tcgctttaat gatgatttca gccgcgctgt actggaggct gaagttcaga   1500
 72 tgtgcggcga gttgcgtgac tacctacggg taacagtttc tttatggcag ggtgaaacgc   1560
 73 aggtcgccag cggcaccgcg cctttcggcg gtgaaattat cgatgagcgt ggtggttatg   1620
 74 ccgatcgcgt cacactacgt ctgaacgtcg aaaacccgaa actgtggagc gccgaaatcc   1680
 75 cgaatctcta tcgtgcggtg gttgaactgc acaccgccga cggcacgctg attgaagcag   1740
 76 aagcctgcga tgtcggtttc cgcgaggtgc ggattgaaaa tggtctgctg ctgctgaacg   1800
 77 gcaagccgtt gctgattcga ggcgttaacc gtcacgagca tcatcctctg catggtcagg   1860
 78 tcatggatga gcagacgatg gtgcaggata tcctgctgat gaagcagaac aactttaacg   1920
 79 ccgtgcgctg ttcgcattat ccgaaccatc cgctgtggta cacgctgtgc gaccgctacg   1980
 80 gcctgtatgt ggtggatgaa gccaatattg aaacccacgg catggtgcca atgaatcgtc   2040
 81 tgaccgatga tccgcgctgg ctaccggcga tgagcgaacg cgtaacgcga atggtgcagc   2100
 82 gcgatcgtaa tcacccgagt gtgatcatct ggtcgctggg gaatgaatca ggccacggcg   2160
 83 ctaatcacga cgcgctgtat cgctggatca aatctgtcga tccttcccgc ccggtgcagt   2220
 84 atgaaggcgg cggagccgac accacggcca ccgatattat ttgcccgatg tacgcgcgcg   2280
 85 tggatgaaga ccagcccttc ccggctgtgc cgaaatggtc catcaaaaaa tggctttcgc   2340
 86 tacctggaga gacgcgcccg ctgatccttt gcgaatacgc ccacgcgatg ggtaacagtc   2400
 87 ttggcggttt cgctaaatac tggcaggcgt ttcgtcagta tccccgttta cagggcggct   2460
 88 tcgtctggga ctgggtggat cagtcgctga ttaaatatga tgaaaacggc aacccgtggt   2520
 89 cggcttacgg cggtgatttt ggcgatacgc cgaacgatcg ccagttctgt atgaacggtc   2580
 90 tggtctttgc cgaccgcacg ccgcatccag cgctgacgga agcaaaacac cagcagcagt   2640
 91 ttttccagtt ccgtttatcc gggcaaacca tcgaagtgac cagcgaatac ctgttccgtc   2700
 92 atagcgataa cgagctcctg cactggatgg tggcgctgga tggtaagccg ctggcaagcg   2760
 93 gtgaagtgcc tctggatgtc gctccacaag gtaaacagtt gattgaactg cctgaactac   2820
 94 cgcagccgga gagcgccggg caactctggc tcacagtacg cgtagtgcaa ccgaacgcga   2880
 95 ccgcatggtc agaagccggg cacatcagcg cctggcagca gtggcgtctg cggaaaaccc   2940
 96 tcagtgtgac gctccccgcc gcgtcccacg ccatcccgca tctgaccacc agcgaaatgg   3000
 97 attttttgcat cgagctgggt aataagcgtt ggcaatttaa ccgccagtca ggctttcttt   3060
 98 cacagatgtg gattggcgat aaaaaacaac tgctgacgcc gctgcgcgat cagttcaccc   3120
 99 gtgcaccgct ggataacgac attggcgtaa gtgaagcgac ccgcattgac cctaacgcct   3180
100 gggtcgaacg ctggaaggcg gcgggccatt accaggccga agcagcgttg ttgcagtgca   3240
101 cggcagatac acttgctgat gcggtgctga ttacgaccgc tcacgcgtgg cagcatcagg   3300
102 ggaaaacctt atttatcagc cggaaaacct accggattga tggtagtggt caaatggcga   3360
103 ttaccgttga tgttgaagtg gcgagcgata caccgcatcc ggcgcggatt ggcctgaact   3420
104 gccagctggc gcaggtagca gagcgggtaa actggctcgg attagggccg caagaaaact   3480
105 atcccgaccg ccttactgcc gcctgttttg accgctggga tctgccattg tcagacatgt   3540
106 ataccccgta cgtcttcccg agcgaaaacg gtctgcgctg cgggacgcgc gaattgaatt   3600
107 atggcccaca ccagtggcgc ggcgacttcc agttcaacat cagccgctac agtcaacagc   3660
108 aactgatgga aaccagccat cgccatctgc tgcacgcgga agaaggcaca tggctgaata   3720
109 tcgacggttt ccatatgggg attggtggcg acgactcctg gagcccgtca gtatcggcgg   3780
110 aattccagct gagcgccggt cgctaccatt accagttggt ctggtgtcaa aaataataat   3840
111 aaccgggcag gccatgtctg cccgtatttc gcgtaaggaa atccattatg tactatttaa   3900
112 aaaacacaaa cttttggatg ttcggtttat tcttttttctt ttacttttttt atcatgggag   3960
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Input Set : **A:\LUCYsequence list.APP.txt**
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113 cctacttccc gttttttcccg atttggctac atgacatcaa ccatatcagc aaaagtgata    4020
114 cgggtattat ttttgccgct atttctctgt tctcgctatt attccaaccg ctgtttggtc    4080
115 tgctttctga caaactcgga acttgtttat tgcagcttat aatggttaca aataaagcaa    4140
116 tagcatcaca aatttcacaa ataaagcatt tttttcactg cattctagtt gtggtttgtc    4200
117 caaactcatc aatgtatctt atcatgtctg gatcctctag agtcgacctg caggcatgca    4260
118 agctggcact ggccgtcgt                                                 4279
120 <210> SEQ ID NO: 2
121 <211> LENGTH: 20
122 <212> TYPE: DNA
123 <213> ORGANISM: Artificial Sequence
125 <220> FEATURE:
126 <223> OTHER INFORMATION: Synthetic oligonucleotide
128 <400> SEQUENCE: 2
129 gaatacaaag cttatgcatg                                                  20
131 <210> SEQ ID NO: 3
132 <211> LENGTH: 13
133 <212> TYPE: DNA
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:
137 <223> OTHER INFORMATION: Synthetic oligonucleotide
139 <400> SEQUENCE: 3
140 gaatacaaag ctt                                                         13
142 <210> SEQ ID NO: 4
143 <211> LENGTH: 20
144 <212> TYPE: DNA
145 <213> ORGANISM: Artificial Sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: Synthetic oligonucleotide
150 <400> SEQUENCE: 4
151 aaagcttatg catgcggccg                                                  20
153 <210> SEQ ID NO: 5
154 <211> LENGTH: 20
155 <212> TYPE: DNA
156 <213> ORGANISM: Artificial Sequence
158 <220> FEATURE:
159 <223> OTHER INFORMATION: Synthetic oligonucleotide
161 <400> SEQUENCE: 5
162 cggccgcatc tagagggccc                                                  20
164 <210> SEQ ID NO: 6
165 <211> LENGTH: 25
166 <212> TYPE: DNA
167 <213> ORGANISM: Artificial Sequence
169 <220> FEATURE:
170 <223> OTHER INFORMATION: Synthetic oligonucleotide
172 <400> SEQUENCE: 6
173 gcggccgcat ctagagggcc cggat                                            25
175 <210> SEQ ID NO: 7
176 <211> LENGTH: 24
177 <212> TYPE: DNA
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178 <213> ORGANISM: Artificial Sequence
180 <220> FEATURE:
181 <223> OTHER INFORMATION: Synthetic oligonucleotide
183 <400> SEQUENCE: 7
184 aatacaaagc ttatgcatgc ggcc                                          24
186 <210> SEQ ID NO: 8
187 <211> LENGTH: 30
188 <212> TYPE: DNA
189 <213> ORGANISM: Artificial Sequence
191 <220> FEATURE:
192 <223> OTHER INFORMATION: Synthetic oligonucleotide
194 <400> SEQUENCE: 8
195 aatacaaagc ttatgcatgc ggccgcatct                                    30
197 <210> SEQ ID NO: 9
198 <211> LENGTH: 20
199 <212> TYPE: DNA
200 <213> ORGANISM: Artificial Sequence
202 <220> FEATURE:
203 <223> OTHER INFORMATION: Synthetic oligonucleotide
205 <400> SEQUENCE: 9
206 catgcataag ctttgtattc                                               20
208 <210> SEQ ID NO: 10
209 <211> LENGTH: 13
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial Sequence
213 <220> FEATURE:
214 <223> OTHER INFORMATION: Synthetic oligonucleotide
216 <400> SEQUENCE: 10
217 aagctttgta ttc                                                      13
219 <210> SEQ ID NO: 11
220 <211> LENGTH: 20
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: Synthetic oligonucleotide
227 <400> SEQUENCE: 11
228 cggccgcatg cataagcttt                                               20
230 <210> SEQ ID NO: 12
231 <211> LENGTH: 20
232 <212> TYPE: DNA
233 <213> ORGANISM: Artificial Sequence
235 <220> FEATURE:
236 <223> OTHER INFORMATION: Synthetic oligonucleotide
238 <400> SEQUENCE: 12
239 gggccctcta gatgcggccg                                               20
241 <210> SEQ ID NO: 13
242 <211> LENGTH: 25
243 <212> TYPE: DNA
244 <213> ORGANISM: Artificial Sequence
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246 <220> FEATURE:
247 <223> OTHER INFORMATION: Synthetic oligonucleotide
249 <400> SEQUENCE: 13
250 atccgggccc tctagatgcg gccgc                                    25
252 <210> SEQ ID NO: 14
253 <211> LENGTH: 24
254 <212> TYPE: DNA
255 <213> ORGANISM: Artificial Sequence
257 <220> FEATURE:
258 <223> OTHER INFORMATION: Synthetic oligonucleotide
260 <400> SEQUENCE: 14
261 ggccgcatgc ataagctttg tatt                                     24
263 <210> SEQ ID NO: 15
264 <211> LENGTH: 30
265 <212> TYPE: DNA
266 <213> ORGANISM: Artificial Sequence
268 <220> FEATURE:
269 <223> OTHER INFORMATION: Synthetic oligonucleotide
271 <400> SEQUENCE: 15
272 agatgcggcc gcatgcataa gctttgtatt                               30
274 <210> SEQ ID NO: 16
275 <211> LENGTH: 1798
276 <212> TYPE: RNA
277 <213> ORGANISM: Unknown
279 <220> FEATURE:
280 <223> OTHER INFORMATION: mRNA sequence for Firefly luciferase
282 <400> SEQUENCE: 16
283 gaauacaaag cuuaugcaug cggccgcauc uagagggccc ggauccaaau ggaagacgcc   60
284 aaaaacauaa agaaaggccc ggcgccauuc uauccucuag aggauggaac cgcuggagag  120
285 caacugcaua aggcuaugaa gagauacgcc cugguuccug aacaauugc uuuuacagau   180
286 gcacauaucg aggugaacau cacguacgcg gaauacuucg aaauguccgu ucgguuggca  240
287 gaagcuauga aacgauaugg gcugaauaca aaucacagaa ucgucguaug cagugaaaac  300
288 ucucuucaau ucuuuaugcc gguguugggc gccguuauuu aucggaguug caguugcgcc  360
289 cgcgaagcac auuuauaaug aacgugaauu gcucaacagu augaacauuu cgcagccuac  420
290 cguaguguuu guuuccaaaa agggguugca aaaaauuuug aacgugcaaa aaaaauuacc  480
291 aauaauccag aaaauuauua ucauggauuc uaaaacggau uaccagggau uucagucgau  540
292 guacacguuc gucacaucuc aucuaccucc cgguuuuaau gaauacgauu uguuaccaga  600
293 guccuuugau cgugacaaaa caauugcacu gauaaugaau uccucuggau cuacuggguu  660
294 accuaagggu guggcccuuc cgcauagaac ugccugcguc agauucucg augccagaga  720
295 uccuauuuuu ggcaaucaaa ucauuccgga uacugcgauu uuaaguguug uuccauucca  780
296 ucacgguuuu ggaauguuua cuacacucgg auauuugaua uguggauuuc gagucgucuu  840
297 aauguauaga uuugaagaag agcuguuuuu acgauccuu caggauuaca aaauucaaag  900
298 ugcguugcua guaccaaccc uauuuucauu cuucgccaaa agcacucuga uugacaaaua  960
299 cgauuuaucu aauuuacacg aaauugcuuc uggggggcgca ccucuuucga agaagucgg 1020
300 ggaagcgguu gcaaaacgcu uccaucuucc agggauacga caaggauaug ggcucacuga 1080
301 gacuacauca gcuauucuga uuacacccga ggggggaugau aaaccgggcg cggucgguaa 1140
302 aguuguucca uuuuuugaag cgaagguugu ggaucuggau accgggaaaa cgcugggcgu 1200
303 uaaucagaga ggcgaauuau gugucagagg accaugauu auguccgguu auguaaacaa 1260
304 uccggaagcg accaacgccu ugauugacaa ggauggaugg cuacauucug gagacauagc 1320
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VERIFICATION SUMMARY                    DATE: 04/13/2001
PATENT APPLICATION:  US/09/446,402A     TIME: 13:35:16

Input Set : A:\LUCYsequence list.APP.txt
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